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ABSTRACT

The purpose of this report is to explore the structuring of academic departments within contemporary comprehensive high schools. It begins with an argument for research on the organization of schools that takes account of the fact that high schools are fundamentally different structures from their elementary school counterparts and that departmental specialization and differentiation are key elements in understanding that difference. Two exploratory studies provide evidence of the department as the site of both a distinctive subject subculture within the school and a significant administrative unit of it. This departmental structure assists in organizing assumptions as well as needs and demands of particular interest in policy formation and implementation. Preliminary findings suggest: (1) departments form interconnected sub-groups within the school; and (2) it is at the department level that the potential for collegiality, collaboration, and shared goals within a high school seem most possible. (Author/LL)

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DIFFERENT WORLDS: THE DEPARTMENT AS CONTEXT FOR HIGH SCHOOL TEACHERS

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August 1990

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DIFFERENT WORLDS: THE DEPARTMENT AS CONTEXT
FOR HIGH SCHOOL TEACHERS

Leslie Santee Siskin

The organization of high schools into departments is a nearly universal feature of the 16,000 school districts across the United States; in schools of every location, size, mission, and governance, highly standardized departmental labels divide teachers and courses along academic lines. So well institutionalized have they become that we think we know them well. A case description for Ernest Boyer's study of high schools, for example, refers to "generalized stereotypes about the character of departments" -- Biology and Math being more conservative than English and Social Studies -- "that seem at least half true" (Lightfoot, 1985, p.260). But beyond stereotypes, what do we know about the workings of departments? The arrangement of teachers and courses into departments has been so standard, become so taken for granted, that we know almost nothing about it: the empirical evidence and theoretical models of departmentalization that could supply more than half-truths are notably absent from the literature on high schools. While the academic department is a markedly familiar feature of the high school, it is also a remarkably unstudied one.

First appearing at the turn into the twentieth century, academic departments became a highly standardized arrangement by the 1930s. In sharp contrast to the "mothering plan" of a single teacher for all subjects in a given elementary class (Kilpatrick,

1905, p. 475), departmentalizing courses and teachers along disciplinary lines helped to reconfigure secondary schools as "the people's college" (Tyack, 1974, p. 74). The resulting configuration lies between the model of the elementary school (where teachers are teachers, students are students, and the key identifier is grade), and that of the college (where key identifiers for both faculty and students are fields); in high school, students are organized by grade across subjects, but teachers by subject across grades.

Although the departmental organization of high schools filled "the gap" between elementary schools and universities, researchers persistently treat elementary and secondary schools as a single topic. The dominant metaphors are of schools as factories, of "egg-crate" or "cellular" classrooms staffed by isolated teachers engaged in "parallel piecework" (Lortie, 1975; Johnson, 1990; Metz, 1990). Even the alternative metaphor of schools as "organized anarchies" characterized by "loose couplings" retains, and even depends on, the notion that "instruction is usually carried out by single teachers in isolated classrooms" (Firestone & Herriott, 1982). Such conceptual images demand studies at the individual or school level; they have largely precluded questions about internal differentiation and group formation. We know that as individuals high school teachers identify themselves, and are identified, as subject specialists (Lortie, 1975; Lieberman & Miller, 1984; McLaughlin, 1987; Smetherham, 1979; Tucker, 1986), yet the

organizational structure which groups them by subject and supports that identification has remained largely invisible.

At this historical moment that structure needs to be made visible. Recent changes in the politics of the educational system and in the demographics of the teaching force are converging in ways which may alter and enhance the role of the academic department. In calling for "alternate" routes to certification, for example, the federal government is privileging disciplinary knowledge over pedagogical training. State certification boards are following a similar path in more frequently requiring a major in a specialized discipline: "neither the major nor the minor may be in education" (Burke, 1988). University faculty are entering "alliances" with their subject-defined "counterparts" at the high school (Tucker, 1986; also Atkin & Atkin, 1989), to share time, knowledge, and legitimacy. Researchers and reformers are both reformulating pedagogical knowledge as "subject-specific" (Shulman, 1987; Stodolsky, 1988) and extending the subject-specialist category down into elementary grades (NBPTS, 1989). Principals routinely charged with supervising and evaluating a staff generically categorized as "teachers" are now seeing themselves, and are being seen, as lacking the expertise to direct "specialists" (Ball, 1987; Dreeben, 1973; Perrone, 1985). And, strikingly, the teachers themselves are changing. Their identification with their specialties is being strengthened as they earn the educational credentials that certify such expertise: the

percentage of high school teachers holding at least a college major in their assigned subject rose from approximately 60% in 1962 to 80% in 1986 (NEA, 1987).

At the same time, and at a much higher volume, another set of changes is taking place. Recently, a so-called second wave of educational reform has galvanized public attention, corporate influence, and private funding around a variety of efforts loosely collected under a vocabulary of "restructuring," "empowering," and "participatory management" to create more "effective" schools. Although the specific changes envisioned by disparate reformers vary considerably, most share two common assumptions: 1) generically defined teachers, guided by instructional leadership of principals, should participate in decisions which have direct bearing on what and how they teach; and 2) new structures need to be designed to allow for collaborative, participatory decision-making. Couched in a language of crisis, proposals call for "radical surgery" to rescue public schools from their apparent demise.

Such radical surgery requires an accurate and intimate knowledge of the patient's anatomy, yet many of the reform prescriptions fail to acknowledge one significant fact: high schools are fundamentally different structures from elementary schools, and one key anatomical difference is their departmentalized differentiation of specialized teachers. Fragments of evidence extracted from studies of other topics suggest that in some schools, under some conditions, departments

may be already meeting restructuring objectives. While there is, as yet, no systematic study of departments in American high schools in print, there are works in which departments appear, and in which they appear to have powerful effects on teachers and teaching.

In large scale studies, for example, statistical data are typically collected and analyzed by personal characteristics (i.e. sex), or by institutional ones (school size). In a study of High School and Beyond data, one research group noted that analysts have argued whether constructs such as "organizational climate" are best understood as measuring individual or school variance, without considering intermediate levels such as departments (Rowan, Raudenbush & Kang, 1989). In fact, such analysis is largely precluded, since the survey includes only one variable (subject assigned) and insufficient samples at the department level. Yet this group found that this single variable produced "results surprisingly robust and consistent." Social studies teachers, for example, consistently showed higher responses on school climate measures. The lack of systematic data on departments leaves much unexplained, but the study raises intriguing questions: do social studies teachers interpret climate questions differently, or do they, in fact, inhabit different organizational climates?

In recent qualitative studies, analysis also occurs at the level of the school or the teacher. Significantly, the word "department" does not even appear in the indexes of the major

studies of high schools (Boyer, 1983; Goodlad, 1984; Hampel, 1986; Lightfoot, 1983; Powell, Farrar & Cohen, 1985; Sizer, 1984). But the department, although "not a specific topic of inquiry," has often "emerged" as an independent variable in interviews with teachers ¹. One study of successful schools, for example, sums up the influence of departments in a succinct sentence: "department chairs and teachers also played significant leadership roles" (Wilson & Corcoran, 1988, p. 58). Researchers for the Boyer study on high schools note "very little interaction across disciplinary lines" but report that teachers find "friendship and support within their departments" (Lightfoot, 1985, p. 260). In one effective school, departments have "clout and status" (Lightfoot, 1985, p. 261); in another, department heads are credited with "running the school" and controlling instructional programs (Perrone, 1985, p. 591). Moreover, although the authors do not make this point, the correlation within their study between schools they identify as particularly effective and those with strong departments is nearly perfect.

As research attention shifts from examining teaching methods to exploring teaching contexts, the department becomes an essential element in understanding the working conditions of high school teachers (McLaughlin, Talbert & Bascia, 1990).

Departments are thus "emerging" as an independent variable in studies ranging from gender to policy: they relate to the distribution of female teachers (Acker, 1983), the frequency of collegial encounters (Charters, 1969; Johnson, 1989; Willower &

Smith, 1986), opportunities for professional development (Little, 1989), support for new teachers (Szabo, 1989), and differences in policy implementation and effects (Ball, 1987; Brophy & Good, 1986; Erickson, 1987; McLaughlin, 1987). These analyses, however, typically engage departments only as labels for differences in subject matter. While their findings point to the salience of, and the variance among, departments, they provide more in the way of incidental observations than framed analyses of them.

The absence of studies of departments at the high school level stands in sharp contrast to a rich literature on their counterparts in higher education, where we know much about the workings of departments and their consequence for the faculties within them. At that level, researchers looking at the organization of the university have repeatedly and consistently documented and explored the importance of the academic department. Twenty years ago one study found departments in control of key decisions, including the selection of faculty and "the criteria and content of teaching" (Demerath, 1967, p.182). Ten years ago, another claimed that the academic department was "the central building block--the molecule--of the American University" (Trow, 1976).

This shared conception of the department as central to understanding the workings of the university has led to explorations of its political power and control over essential resources within the organization (Lawrence & Lorsch, 1967;

Pfeffer & Salancik, 1980; Trow, 1976) and of its connections to discipline-specific reference groups outside the university walls (Caplow & McGee, 1958; Clark, 1987; Crane, 1988; Gouldner, 1957; Schein, 1978; Van Maanen & Barley, 1984). In a study of the power of occupational communities, Van Maanen found that the department "tends to develop its own language, norms, time horizons, and perspectives on the organization's mission," and "when forced to compete for resources or to cooperate on joint ventures, [is] likely to vie for the privilege of defining the situation" (Van Maanen & Barley 1984, p.333; see also Lawrence & Lorsch, 1967). This notion that a department, or discipline, develops a distinctive culture is extended in Burton Clark's recent works, where he and his colleagues explore how characteristics of the "bodies of knowledge variously determine the behavior of individuals and departments" and describe departments as "small worlds, different worlds" (Clark, 1989; also 1987). Further, and more critical explorations of that link arise as feminist scholars, social historians, and literary critics have begun to map out interrelations among the position and structure of the field, its demographic make up, and the kinds of knowledge it produces and preserves (Culler, 1988; Gumpert, 1989; Lincoln, 1986; Scott, 1988).

To what degree would these insights about the workings of academic life at the university level obtain in the less departmentalized high school? If university departments divide faculty into different worlds, develop distinctive cultures, and

control key decisions about professional careers and allocation of resources, what do high school departments do? If high school teachers are increasingly trained and socialized within the academic disciplines, do they carry those disciplinary distinctions with them into secondary schools?

Method: Stage I

To begin to explore those questions, this project began with a pilot study of two departments in a single California high school, which I will call Stanton. This was designed as an exploratory study to investigate whether departmental or disciplinary differences were manifest at the high school level, and what kinds of evidence might demonstrate those differences. The findings would then be used to refine questions for a larger study. Over a five month period I was able to observe a series of department meetings and office interactions, and to conduct several interviews with each department chair. I also interviewed and observed department members, clerical aides, chairs of other departments, and the principal. A group of Stanton students had recently conducted a survey of student opinions about departments; they shared their data and their commentary.

Stanton is in many ways a typical high school. Comprehensive in design, it provides 1200 students with a fairly standard array of courses divided into 50-minute periods over a six-hour day. In other ways, however, it is not typical. Stanton is, for example, above average in its academic

orientation: teachers have strong academic backgrounds in their respective fields and are actively preparing their students for college work. Approximately 90% of its graduates go on to higher education, 70% to four year institutions. The yearly "special events calendar" lists 28 significant dates; eight are announcements of SAT exams. In terms of resources, Stanton is also above average; located in a relatively affluent suburban district, it spends about \$5600 per pupil where the national average is slightly under \$5000. Here departments have office space and clerical aides; they also have computers and the luxury of ordering materials regularly. For a pilot study to generate questions, categories, and hypotheses, the choice of this school was particularly useful. If secondary school departments do, like their college counterparts, compete for, define, and use resources in different ways, then this would be more easily observed where resources were more plentiful. As a base from which to generalize, it later raised critical sampling issues, as I will discuss below.

Again, since this was a pilot study, the choice of departments was similarly and deliberately biased toward potential group and disciplinary difference. The two departments, English and Math, were selected for a number of reasons. First, no fewer than, and no more than two departments were necessary to determine whether observable differences exist. Second, the two departments have distinctly different professional identification and affiliations. Math and English

typically show little overlap (as opposed to Science and Math, for example, which might share members). They are also large enough both to support group identity and to provide an adequate number of informants. The Math department consists of 9 members, all full-time; English has 9 full-time teachers and 2 shared with other departments. Third, I wanted two departments not only within the same school, but similarly positioned within that school: Math and English are both academic, commonly high status subjects.² They exist and are constituted similarly across schools, are primarily staffed by teachers who could teach over the range of courses offered, and were both targeted by new state curriculum frameworks. At Stanton High School they are also the only two areas in which students must take competency tests. Finally, to simplify the question of disciplinary distinctions, they are single-discipline subjects (as opposed to science or social studies) whose differences have been documented in university studies.

Results: Stage I

The resulting case suggests a portrait of high school which is strikingly different from the standard image of an egg-crate structure staffed by isolated teachers. Instead it depicts a school where departments--or at least some departments--do indeed 1) divide faculty into different worlds, 2) exhibit distinctive cultures, and 3) control key decisions about resources, professional tasks, and careers. The first two "findings" were

consistent with the study's expectations, and predicted by its design; they served the purpose of generating specific questions and hypotheses for the subsequent larger study. The third, however, was rather unexpected, and led to a second stage of study for the project.

Departments divide faculty into different worlds.

Departments are physically, as well as organizationally, separated at Stanton. Rather than a single building, the campus has separate units, each housing four to seven rooms, which surround a large open area where students eat and congregate. English and Social Studies have offices in a large building at the back of campus, and English classes are taught there or in the three surrounding units. Math and Science offices are housed in another building, Math classes there and next door. The particular pairings of departmental offices underscores the importance of subject: proximity is not due to numbers or efficiency, and no one could offer any reason except that "they seem to go together." The architectural arrangements provide little opportunity for interaction across departments, and teachers reported that little occurs. While there certainly are friendships which cross subject lines, teachers observed that they "almost never" talk with the majority of their colleagues, and that there are many they do not even know by name. Even department chairs, who meet as a group twice a month, when asked

whether what they were describing was true for another department, were reluctant to venture a guess.

While members of both departments might not even guess about the practices of another specific department, they did seem to share an image of what the "standard" department does, and described their own practices as departures from this common model. Both chairs, for example, described as "unusual" their own practice of calling meetings as needed rather than according to a pre-set schedule. In fact, every chair I contacted at that school reported the same procedure, and none knew about the routine practices of their colleagues. This image of department isolation was shared across the school: the principal and the secretaries reported that they saw little interaction across departmental lines. In talking with two students about their recent survey of student opinions of teaching, I asked whether they thought the same results would have come out if they had surveyed the faculty. Both agreed that "teachers know more about their own departments, but don't know anything about the others."

While teachers at Stantor are isolated and insulated relative to the school, they spend significant and substantive time in interactions within the department. From the hectic few minutes of preparation before the day begins, through the seven minute intervals snatched between classes, during their prep periods and lunches, to the last minute collecting of thoughts and belongings at the end of the school day, these teachers typically spend their out-of-class time within the department.

Because of the office arrangement, whether they seek it or not, they are likely to have casual contact with colleagues, to observe and be observed in planning or student conferences, and to share stories and request help with whoever is gathered there. Comments such as "listen to what happened in algebra today," or "I can't get this to print" initiate conversations about in-class activities. Unlike their counterparts in elementary schools, who plan in their own classrooms, or those in colleges, who have private offices, these teachers' private quarters are in communal, and public, space.

But while space clearly plays an important role in differentiating these teachers into sub-communities, there is more than architectural accident at work. Teachers in both departments identify themselves as members of a professional network with strong ties outside the school; they speak as members of a community defined not by space but by subject. Both chairs and teachers, for example, reported with confidence on the procedures and practices of their counterparts at other schools, even where they had expressed ignorance of what other departments in their own school were doing. I was struck by the frequency of external references in their own conversations: reports on conferences, anecdotes about teachers in other districts, details about who contributed what to state policy. On matters of curriculum or policy they repeatedly brought into the discussion information from outside the school: "Henry and I were at Asilomar, and we heard [x] speak about this," or "numbers

9 to 12 [on the state framework] come from the Bay Area Writing Project people." The comments demonstrate both the enactment and the announcement of professional, subject based identity; every meeting I observed contained such comments, and almost every interview.

Departments exhibit distinctive cultures.

Teachers not only invoked the name of subject specialists, they spoke distinct languages, and used references in specialized ways, according to their subject specialty. Attending a meeting of a different department can be like entering an unfamiliar country: each has a shared and specialized language, and draws on a separate knowledge base largely inaccessible to the uninitiated. English teachers gave a close reading to the text of the framework, and joked about interdisciplinary aspects of novels: Dahl's "rats and sausages" as science, Of Mice and Men as math. Math teachers talked of "tiling properties," of "Fibonacci series," and "Golden rectangles." They developed an accounting system to provide "validation" and "proof" of what they had accomplished in individual staff development time. In their meeting on the new state guidelines they operated in quite different ways from the English teachers. They never read, or even had copies of the framework; instead, they concentrated on ordering sets of courses and students into newly defined patterns and sequences. "Math 12 is supposedly a second section of 1B but I have one that was in 1A before," one teacher volunteered.

Another suggested that "you could move 11 and 12 closer to A and B, and still provide a channel to 2B." Students were featured prominently in the discussion, most frequently in terms of where they fit or what properties they displayed: "that kind of kid should be in 1B." One teacher commented that "what we're trying is mixing medium ninth graders with low tenth and eleventh" which, like adding unlike fractions, apparently shouldn't be done.

Visually, as well as aurally, the two departments exhibited distinctly different cultures. The offices show striking contrasts in the ways they are laid out and decorated, and create functionally different environments which support different kinds of behavior. The English office is a large L-shaped room, divided into work areas by individual desks, each prominently labeled with the name of the teacher. Five wheeled carts transport typewriters from desk to desk. Walls, windows, the door, and even the ceiling are covered with communications: a bumper sticker declaring that "English teachers do it write," cartoons, movie posters, a snapshot of the department-- lots of pictures, lots of words, and lots of humor (often at the expense of the profession). Most center either on the faculty (a McDonald's recruiting ad marked "Attention English Teachers") or on the subject (a model of the Globe theater). A low shelf serves frequently as a communal table for food, but teachers typically take their own servings back to their own desks.

The Math office is really three separate areas, divided by function rather than by individual. One desk, beside the door, serves both as sentry position and as Macintosh space; different teachers occupy it as needed. The same is true for the other furniture in the office: a large table for projects or conferences, two tables side by side with IBM computers, and at the back a long counter with stapler, hole punch, copier and thermofax. Displays are far fewer, and more ordered; trophies sit on the file cabinet, a list of award winning students covers a blackboard, and a large class schedule dominates one wall. Teachers occupy space according to what they are involved in at the moment, or what happens to be free.

These same spatial patterns carry over into behavior and conversation patterns, and into task assignments. At department meetings, the English teachers rearrange classroom desks so everyone has his or her own space; in discussion everyone talks, and frequently jokes about the profession. The Math teachers occupy whatever space is available, and one person at a time takes the floor; anyone may be asked to prepare and chair part of a meeting. Again, the same pattern emerges in course assignment: the Math ideal is that all teachers should move in and out of courses much the way they move in and out of their office work stations, the underlying assumption that the content is fixed by the subject matter, and largely independent of the particular teacher. English teachers, in contrast, tend to develop and "own" their own courses. Even where curricular guidelines

restrict the possibilities, as in multiple sections of the same course, individual teachers customize the actual content, dropping, adding or varying the time spent on particular texts. The assumption here is that content is largely determined by the individual teacher's strengths or interests, and by student response.

The different subject cultures result not only in different departmental policies and practice, but also in different responses to the same external policies. State guidelines which would offer a limited list of texts for teachers to choose among were greeted with indifference in the Math department, outrage in English. Class size, for another example, is supposedly fixed by district policy, but was received and interpreted quite differently. Both chairs offered class size as the major problem facing the department: according to the Math chair, this is the issue that "generates the most heat, and we get the least light." Yet there the teachers seem to accommodate the problem fairly smoothly, increasing small group activities and relying on clerical aides to correct assignments. Where the problem remains critical is where class size is confounded by class mix: it isn't just class size, but tracking policies which are at issue. All of their "teaching" is located inside the class, and to deal simultaneously with different ability groups creates problems. The principal describes the Math department as "probably the most rigorous in laning [tracking], and that's probably pretty defensible . . . you get a wide range of abilities, have some get

it right away, the student next to him, not at all, and that really taxes teachers." Since everyone should be using the same steps to arrive at the same answers and the lessons are sequentially dependent, those who "get it right away" have to mark time till the last ones catch up or the slower ones are lost forever. Problems of class size, then, can be addressed indirectly, through clerical support and increased tracking. And, in fact, the rigorous laning with its subsequent proliferation of subdivided classes (freshman math is subdivided into seven distinct levels) actually functions to reduce class size in spite of formal policy.

For English teachers, the problem is interpreted differently. Within their definition of teaching, they can "do more with heterogeneous grouping." Since they rely more heavily on discussion inside the classroom, different perspectives can be not only tolerated but also sometimes valued. They do most of their individualized instruction through assignments, and through comments on papers. Class size is linked unavoidably to amount of time spent on grading, and is an issue which generates a tremendous amount of heat from and within the department. It "caused an explosion in a department meeting" when compromises to lower paper load were linked to lowering standards, and a "heated exchange" when the differential effects on other departments were discussed. Because grading papers is defined as a part of the teaching process, it cannot be turned over to aides. Because it is highly individualized, tracking has no significant effect.

English teachers see relief only through a reduction in numbers of students per class, or number of courses taught (before Proposition 13 they were assigned one less class to allow for the difference). Now, according to the chair, departments are "all staffed on the same numerical ratios. That's ridiculous--you can underline that three times. No policy level acknowledges that there is any difference between departments."

At Stanton, tracking is a departmental policy, a coping mechanism to accommodate the district policy on class size, but one which works reasonably well for Math, though not for English, because of the particular understandings of teaching and curriculum within each subject. Stephen Ball reports a similar instance in his study of Beachside Comprehensive, although in that case it was "going mixed-ability" which was itself the school policy at issue. Despite the distinction, the subject pattern was consistent: "the advocacy of mixed-ability was spearheaded by the English department . . . the opposition was lead initially by the languages and mathematics departments" and the pattern "could be understood in terms of differences between departments." He goes on to attribute those departmental differences to the "complexes of epistemological, pedagogical, and educational values and assumptions [which] constitute, in each case, a subject subculture" (Ball, 1987, pp.40-41). The case study of Stanton adds revealing insights into how those assumptions are made manifest through a number of departmental stances, and underlie both the decisions which the department

makes and their responses to decisions made elsewhere. Not only tracking, but the patterns of course offerings, the assignment of teachers, and the variation in articulation between sections all trace back to this difference in the "values and assumptions" of the different subject subcultures.

Departments control key decisions about resources, professional tasks, and careers.

While the subject subcultures were evident in the differences between the two departments at Stanton, and through the decisions they made, what was most striking, and unexpected, was what they had in common: the degree of formal authority over decisions affecting teachers and teaching. Course content and materials, and which courses a teacher would teach, as well as which students would take them, were routinely and officially department matters, as were the criteria on which those decisions would be made. The new state frameworks, with their curricular guidelines, for example, were handled at the department level, where "policy statements" were issued to the school and district detailing what the content for each course would be. Course assignment too, was formally the province of the department, and the practice of rotation in the Math department was spoken of as "policy" set by the chair: "all teachers teach all levels. . . some people would like to be specialists. Philosophically, I'm opposed to it. I wouldn't belong to a department where this was not the policy." When asked how he would deal with a teacher who

disagreed, his comment underscored the importance of departmental authority: "If push came to shove, one of us would have to leave." The English chair relies more on a bargaining model than directive, and teachers here are often "specialists," but again the decision is within the province of the chair: "I do all the actual scheduling. . . . I try to give you something you prefer when I have to give you something you don't."

Department chairs also exercised considerable authority over the selection of their faculty. While hirings have been few in recent years, both chairs spoke of selection of staff (both clerical and faculty) as being primarily the responsibility of the chairs. From the initial job description through the culling of responses and selection of candidates for interviews to the final election of the chosen applicant, the process is formally and practically headed by the chair. The most recently hired teacher agreed: "I don't see them [administrators] much. [The chair], he's who I work through, who hired me." Such decisions are subject to the approval of the principal and director of personnel, "but I can't imagine being overridden . . . even though they have the legitimate right to do it, they shouldn't," observed the Math chair, who has hired two teachers in the past three years. The principal, too, had a hard time imagining overriding a chair's opinion. When asked to weight the relative influence of those involved in hiring, he replied that he "never thought of it in any kind of weighting, we usually have consensus

on hiring. The current group [of chairs], I trust their judgment. They are master teachers."

Not only are they master teachers, they are also middle managers who are responsible for the performance of the staff below them. And by state law they are officially counted as part-time administrators, since they are released from two of the normal five teaching periods for administrative duties. At Stanton, those duties include evaluating the teachers in their departments; they observe half the faculty on three occasions each year, and write a year-end report which goes to the individual's file. The dual role of teacher and supervisor does cause problems for these chairs: according to the English chair, "we are in a weird middle management role, an almost untenable position when you work day to day with the teacher." The principal refers to this role as "hermaphroditic," where they are "part teacher, part administrator." In their study of British secondary schools, Earley and Fletcher-Campbell observe the same split, and a "perceived conflict" in what they call the "pivotal role" of the department head both as "manager and as team member" (Earley & Fletcher-Campbell, 1989; see also Adduci, Woods-Houston & Webb, 1990). At Stanton the English chair described her evaluation responsibility as often "uncomfortable for me," but one which the teachers prefer: "from what I've heard them say they'd rather have me do it than someone who doesn't know the discipline." The Math chair echoed the same thoughts: "it's extremely unusual. . . most of the time fine, but sometimes

awkward. . . . The teachers would rather be evaluated by someone who knows what he's watching. I remember having an ex-coach who became a vice-principal be the one who was supposed to evaluate my math class; he was simply incompetent to do it."

If the formal structure and authority of departments, and the management role of their chairs emerge as striking findings from the Stanton case study, they also raise striking, and puzzling questions. If Stanton is "weird" or "extremely unusual" in these organizational attributes, can the other findings be usefully extrapolated to other settings? If it is not "extremely unusual," why are these powerful and formal organizational structures so glaringly absent from the literature on American high schools? As a case study, Stanton provides a rich picture of the patterns of departmental difference and differentiation, but it cannot speak to their prevalence. Without further empirical data, we cannot know what Stanton is a case of.

Method: Stage II

To locate Stanton within a larger context, a second phase of pilot study, under the auspices of the Center for Research on the Context of Secondary School Teaching (CRC)³, explored findings from the Stanton case through a small-scale survey of department chairs. Twenty-five California schools comprised the sample, representative of both geographic region and school size. Background data, such as district and school enrollment and district wealth, were collected from published statistics. The

smallest school had 134 students, the largest 3,035. In each school Math and English chairs were asked to fill out a single-page questionnaire covering characteristics of the department head (e.g., tenure in role, compensation) and of departmental formalization and resources (space, budget). The final category of questions asked chairs how much time the department spent on, and how much control they had over, a set of five items drawn from the Stanton case (selection of texts and courses, and teacher assignment, hiring, and evaluation). Additionally, although not systematically, several chairs provided brief telephone interviews to clarify or elaborate responses. One school was dropped from the study since it was a combined junior-senior high; of the remaining sample 93% included grades 9 to 12, the other 7% all 10 to 12. For the reduced sample, the response rate was .79. Although the pilot study is too small to deliver an explanatory portrait of departmentalization, in the absence of other empirical data these initial findings provide a useful first sketch.

Results: Stage II

While survey analysis confirmed that Stanton did indeed have strong departments, they were far from unique. To begin with the obvious, corresponding departments did exist in all of the schools, and in remarkably standardized form. In what might be called a "miracle on 34th street" test, questionnaires and phone calls addressed only to the "chair of the English (or Math)

department" easily found their way to the appropriate individual. Interestingly, this was not true for non-academic departments, where there were a variety of configurations and clusterings. Follow-up phone interviews revealed that Art, for example, might stand on its own or be part of Industrial Arts in one case, Art and Theatre in another. Even in the smallest school Math and English had their own departments; even in the largest they were not sub-divided. Departmentalization may be, in part, a functional response to increasing school size, but the uniformity of academic divisions across size suggests that there are other processes at work, and that these academic divisions are structured by forces external to the individual school.

Although, or because, the departmental units were consistent across schools, they varied considerably in size. The smallest contained 6 (and 2 of those part-time) members, the largest 22. Department size was primarily related to school size, although somewhat mediated by subject, with English typically being slightly larger. Stanton fit well within this pattern.

Departmental resources also varied widely, and Stanton departments, although well-endowed in comparison to this sample, were certainly not unique. While only 11% of the departments reported having their own secretaries, 46% said they did have a discretionary budget, and the same number their own office. That last figure is particularly important since departmental offices play such a key role in allowing and encouraging within-subject interactions at Stanton. Here, while the sample is too small for

serious statistical analysis, there was no obvious functional pattern. Neither office space nor clerical aid, for example, were predicted by department size, or by subject. Nor were resources uniformly allocated within schools; in several cases one chair would report having a resource the other did not, suggesting that whatever is going on is occurring at the department level rather than the school.

The role of the chair also varied considerably across schools. In the sample, as at Stanton, Math chairs were more likely to be male (80%) and English female (60%), results consistent with the differential membership of the fields and the greater likelihood of males in administrative roles. Most chairs (57%) were appointed to their positions, but 30% were elected by their own department members, and 7% chosen by a combination of the two. Stanton chairs described their selection as a combination process, where the principal consulted with faculty before making his appointment. Only two chairs reported that they were limited to a fixed term as chair, and both of those described their selection process as rotation. In contrast were what might be called "career chairs:" one had held his position for thirty years, three for more than twenty. The mean was 9.54 years, with 38% of the department chairs reporting more than ten years on the job. Adding support to the conception of career chairs is the fact that 23% had been hired into their schools as department chairs, and 7% were brought into the district at that level. These, then, are not simply teachers filling support and

clerical roles; they were hired to be department managers. Although again the sample is too small for meaningful correlations, there does appear to be a link between length of tenure and relative (within-school) departmental authority. In one case where the Math chair reported much greater authority across items, he had been brought in as chair 14 years ago; his English counterpart had 4 years as chair. In another, less pronounced case, it was the English chair with 15 years who had more authority than the Math head with 6.

A substantial majority of the sampled chairs (73%) reported that they received additional salary as compensation for their administrative duties, while half had teaching loads reduced by one course (34% received both). Only 7% indicated that they, like the Stanton chairs, had two periods for administrative time. At the high end, one reported \$2100 and a one-course reduction; at the opposite end, 11% received no compensation at all, even though most of their descriptions of time spent and authority did not differ from the rest. Two volunteered that prior to the Proposition 13 state budget cuts the chair had been compensated, but that release time was one of the "luxuries" which had to go.

The work they were doing, however, remained. One Math department did stand out: not only did the chair receive no recompense, the department had no office, clerical aid, or budget, and among the lowest reported authority. Here the role of chair appeared to consist primarily of disseminating information from the principal.

Departmental authority was measured by a set of five items. Chairs were asked to choose responses from a four point scale ranging from full authority to none at all. In analysis, responses of full or joint authority were considered positive responses, advisory only or none at all were deemed negative. While those chairs with advisory roles may, in fact, exert considerable influence over the decisions made, the question here was whether they had formal authority. The items themselves were drawn from the responsibilities of the Stanton departments, and represented a cluster of possible indicators of departmental authority. In analyzing survey data, however, the resulting patterns suggested reconceiving them as a scale. First, they can be arranged in a tentative hierarchy in terms of the percentage of departments reporting authority (full or joint) over each. At the base of the pyramid, almost all of the departments (92%) control decisions over textbook selection, and most over course offerings (76%) and the assignment of teachers to those courses (73%). A smaller, but still considerable, percentage (30%) claim joint authority (none had full) over hiring of teachers within their departments. At the top only a tiny fraction are charged with evaluating teachers (7%), confirming the Stanton chairs' opinions that they are "extremely unusual" in that regard. However, the "extreme" is somewhat qualified by the fact that an additional 23% reported that they played an advisory role in teacher evaluation.

That hierarchy gives information on the relative frequency of reported authority over each item, but tells little about the relationships among items. Further support for considering these as a scale of departmental authority is found in cross-tabulations between items, where each item, in hierarchical order, substantially includes the levels below it. All departments which evaluate teachers, for example, also hire and assign them, and determine course offerings and textbook selection. Almost all departments which hire teachers also assign them (88%). The weakest relationship is between course assignment and course offerings, where the rate of inclusion drops to 73%. At the bottom of the pyramid, all departments with authority over course offerings also decide their texts.

The authority items asked the degree to which the decisions about core issues were decided at the department level, but did not distinguish between those made within the department and those made solely by the chair. That teachers are involved with the decision-making process can only be inferred from other items: the findings that 80% of the departments meet formally at least once a month, and that they spend the greatest proportion of that time on curricular matters, suggest that they are involved with curricular decisions. A return, once again, to the Stanton case suggests that where teachers are involved with curricular decisions they may well deal with them in subject-specific ways, and toward subject-specific ends.

The survey results, like the Stanton case study, again provide a portrait of high schools which is strikingly different from the standard image of egg-crate classrooms staffed by isolated teachers, and strikingly different from their elementary school counterparts. In these schools, as at Stanton, department chairs emerge as "middle managers" with financial, curricular, and personnel responsibilities. Departments emerge as formalized administrative units with their own offices, organizational routines, and discretionary budgets. Most striking is the degree to which they report significant control over what courses are offered, what content they include, and who gets to teach them-- decisions which are critical to the professional lives of the teachers within them.

Discussion and Conclusion

The studies described above are exploratory and limited-- what they offer might be better described as a sketch than a portrait. I do not, for example, address departments which have more marginal status (such as art), more complex internal structures (social studies), or other sorts of external supports (vocational ed). The intent here was not to provide a definitive study of departments but rather to explore the possibility of studying high schools from a departmental perspective and to identify aspects with particular promise for subsequent study (Siskin, in progress). Within these limitations, however, the studies do suggest several important points.

Attention to departmental structure acknowledges the marked difference between high schools and their elementary counterparts. The point may seem self evident, but it is one we make too infrequently. In one sense, that they are different entities is readily apparent: we arrange orientations, provide guidance counselors, and even structure middle schools to ease the transition for students into what, as parents and practitioners, we recognize as a radically different environment. High schools are larger, more complex structures physically and organizationally, with multiple paths through hallways and curricula. They bring together students preparing for college, some seeking vocational training, others marking time till they can legally drop out-- and teachers to serve them all. There should be little surprise that researchers have found this conflux of interests conforms more to the model of an organized anarchy than a rational bureaucracy (Firestone & Herriott, 1982; Herriott & Firestone, 1984).

Yet until recently we have paid little attention to what organizes this anarchy, and how the complex patterns of the high school shape the multiple worlds of teaching within them (McLaughlin, Talbert & Bascia, 1990). The emerging portrait matches neither the image of insulated teachers in isolated classrooms nor the vision of teachers united through clear and shared goals under the instructional leadership of a single principal. Instead teachers are bound together around a variety of common tasks and interests, linked in varying ways to a wide

spectrum of external associations and constituencies, and actively engaged in making sense of competing, and sometimes conflicting demands.

The study described above is a preliminary sketch in a larger project underway at CRC. This integrated research effort begins to examine the context of teaching in secondary schools-- to explore the complex organizational and sociocultural terrain of the high school. Departments are one way into this complexity, one component of the context of teaching in secondary schools. They are not the only way: other pieces of the larger CRC project look to tracking (Talbert, 1990), professional networks (Little, 1990b), union membership (Bascia, 1990), and characteristics of students served (McLaughlin, 1990) as potentially revealing paths into the social and structural features of teachers work. But departments are emerging as one "fundamental part of the organization of schools which researchers have disregarded" (Johnson, 1990).

The findings from the study presented here suggest that departments are fundamental in a number of ways, and to a number of research agendas. To summarize the major points of the study: departments are fundamental boundaries forming distinct sub-cultures within the school; they provide links to and participation in the wider community and culture of the respective disciplines; and they serve as potent administrative units.

In terms of the social structure within the school, departmental designations are not only labels which distinguish teachers, but boundaries which divide them into distinct and different worlds. At Stanton teachers have little time for collegial interaction; they "almost never" talk with the majority of their school colleagues, and do not even know many by name. Because of the dual pressures of time constraints and architectural arrangements, other departments become as distant, and as inaccessible, as far off lands.

Yet teachers at Stanton spend significant and substantive time in interactions within the department. The same architectural arrangements that separate them from school wide colleagues draw them together in frequent exchanges throughout the day, and create the opportunity (if not the necessity) for intimate knowledge of each others' personal and professional lives. They eat, plan, prepare materials, make phone calls, confer with students, draw support-- all in the shared communal space of the department office. Discussions about family, stories of classroom events, reactions to new policies are all woven together in a shared understanding-- a social construction of meaning growing out of and attached to the everyday life of teaching. Departments thus form intimately interconnected subgroups within the school, and it is at the department level that the potential for collegiality, for collaboration, for shared goals within a high school seems most possible, and research on such issues most promising.

But departments are not simply groups of teachers who happen to share office space; they are so located because they are subject specialists who share the specialized knowledge, references, and language of their subject matter. It is as carriers of that knowledge that they are logically grouped together, and that knowledge carries over into their interactions. Within the department they can invoke the names of leaders in their fields, or tell jokes inaccessible to the wider public, and be sure of being understood. They bring in new methods and ideas from conferences, bypassing the school and district vehicles for professional development which reforms and their analyses commonly target. References to colleagues across the state provide evidence of direct influence of this subject community; the commonality of attitudes toward tracking in the Math teachers' at Stanton and in Ball's study of Beachside reveal influence of a subtler kind. The notion of departments across schools, and perhaps across countries, sharing in a common subject subculture which organizes their assumptions, needs, and demands is of particular interest in understanding how policies are implemented (or why not) and how uniform mandates can have quite different impacts within the same school. With attention to subject matter patterns, policy analysts can address the chair's complaint: "ridiculous-- you can underline that three times . . . no policy level acknowledges that there is any difference between departments."

The difference in subcultures becomes particularly important if, as the data suggest, departments not only respond to policies but also to make them. Departments emerge from this study as formalized administrative units with their own offices, organizational routines, and discretionary budgets. Most striking is the degree to which they report significant control over what courses are offered, what content they include, and who gets to teach them-- decisions which are critical to the professional lives of the teachers within them. Chairs, in "hermaphroditic" roles, serve as "part teacher, part administrator." Because the demands, requirements, standards are defined as content-specific, they are expected to develop distinct practices and procedures which reach into teaching tasks (the Math department's system to provide "validation" and "proof" for individual professional development time) and curricula (the dividing of freshman math into seven distinct levels and needing another; English into three). Because their specialized knowledge is acknowledged, they become the appropriate authority to not only decide curricular matters, but also evaluate their own members. "The teachers would rather be evaluated by someone who knows what he's watching" and the relevant knowledge is subject specific. This apparent departmentalization of authority has profound implications for our understandings of school organization and administration, and for research on professionalization as it applies to secondary school teachers. These teachers suggest, for example, that effective English and

Math departments may have demonstrably and justifiably distinct goals, standards, and procedures and that they may well turn to chairs rather than principals as appropriate instructional leaders.

Departments then are fundamental units to consider in understanding the complexities of both the sociocultural and organizational terrain of the high school. And at the same time, both the sociocultural and organizational aspects of schooling need to be brought to bear on understanding departments themselves, on why they occur with such regularity, and how they come to have such consequence for the teachers within them.

While the two stages of the study might have been, and might be read as, separate studies, I would argue that it is as complementary pieces that they become most useful to understanding what departments are, and how they matter to teachers. The first looked at the department as an example of subject sub-culture, the other as an organizational sub-structure, but in fact both larger systems are implicated and intertwined in the structuring of academic departments. Each supports and makes sense of the other.

The Stanton case, for example, provides an instance of the development of a sub-culture around subject lines, which makes sense given the spatial separation and authority of the departmental structure. The organizational attributes of the department provide a structural and a structured opportunity for community and for cultural differentiation.

At the same time, the organizational decisions which divide faculties along academic lines and physically group them around teaching assignment make sense given our understandings of the differences in subject matter-- the specialized disciplinary structure of knowledge.

And, in turn, our understandings of disciplines as different and discrete make sense given the arrangements under which we have come to learn subjects-- through different textbooks, in different classrooms, taught by different teachers.

My purpose here is not to set up a chain of reasoning that leads back to original cause, but to illustrate a relationship between the structure of knowledge and the structure of schools which is both circular and mutually reenforcing. Factors in each system structure and support aspects of the other, and the two must be analytically linked, as they are empirically, to understand the structuring of academic departments.

REFERENCES

- Acker, S. (1983). Women and teaching: A Semi-detached sociology of a semi-profession. In S. Walker & L. Barton (Ed.), Gender, class and education (pp. 123-139). Falmer Press.
- Adduci, L. L., Woods-Houston, M. A. & Webb, A. W. (1990). The department chair: Role ambiguity and role strain. Paper presented at the annual meeting of the American Educational Research Association, Boston, MA. Research for Better Schools, Inc.
- Atkin, J. M. & Atkin, A. (1989). Improving science education through local alliances. Santa Cruz: Carnegie Corporation, Network Publications.
- Ball, S. J. (1987). The micro-politics of the school. London: Methuen.
- Ball, S. J. & Goodson, I. F. (1984). Defining the curriculum. London: Falmer Press.
- Bell, L. A., Pennington, R. C. & BurrIDGE, J. B. (1979). Going mixed ability: Some observations on one school's experience. Forum, 21(3).
- Bascia, N. (1990). Teachers' evaluations of unions. Journal of Educational Policy, Fall, 1990.
- Boyer, E. L. (1983). High school: A report on secondary education in America. New York: Harper and Row.
- Brophy, J. E. & Good, T. L. (1986). Teacher behavior and student achievement. In M. C. Wittrock (Ed.), Handbook of research on teaching. New York: Macmillan.
- Charters, W. W. (1969). Stability and change in the communication structure of school faculties. Educational Administration Quarterly, 5(3), 15-38.
- Clark, B. R. (1987). The academic life: Small worlds, different worlds. Princeton: The Carnegie Foundation for the Advancement of Teaching.
- Crane, D. (1988). Invisible colleges. Chicago: University of Chicago Press.
- Culler, J. (1988). GRIP's Grasp: A Comment. Poetics Today, 9(4), 783-789.

- Demerath, N., (1967). Power, presidents and professors . New York: Basic Books.
- Dreeben, R. (1973). The School as a workplace. In R. Traver (Ed.), Second Handbook of Research on Teaching (pp. 450-473).
- Earley, P. & Fletcher-Campbell, F. (1989). Managing school departments and faculties: Towards better practice. Educational Research, 31(2), 98-112.
- Erickson, G. (1987). Teacher perspectives and educational innovation. unpublished Ph.D. dissertation, University of California, Berkeley,
- Firestone, W. A. & Herriott, R. E. (1982). Two images of schools as organizations: An explication and illustrative empirical test. Educational Administration Quarterly, 18(2), 39-59.
- Firestone, W. A., Herriot, R. E. & B. L. Wilson, B. L. (1984). Explaining differences between elementary and secondary schools: Individual, organizational and institutional perspectives . Philadelphia: Research for Better Schools Inc.
- Foucault, M. (1972). The archaeology of knowledge and the discourse on language . New York: Pantheon Books.
- Goodlad, J. (1984). A place called school . New York: McGraw Hill.
- Goodson, I. F. (1988). The making of curriculum . London: Falmer Press.
- Gouldner, A. W. (1957). Cosmopolitans and locals. Administrative Science Quarterly, 444-480.
- Gumport, P. J. (1989). E Pluribus Unum? Cultural conflict in academic organization. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.
- Hampel, R. (1986). The last little citadel: American high schools since 1940 . Houghton Mifflin.
- Johnson, S. M. (1990). The primacy and potential of high school departments. In M. W. McLaughlin, J. E. Talbert & N. Bascia (Ed.), The secondary school workplace. New York: Teachers College Press.

- Kilpatrick, V. E. (1905). Departmental teaching in the elementary schools. Educational Review, 468-485.
- Lawrence, P. R. & Lorsch, J. W. (1967). Organization and environment: Managing differentiation and integration . Boston: Harvard University.
- Lieberman, A. & Miller, L. (1984). Teachers, their world, and their work . Alexandria VA: Association for Supervision and Curriculum Development.
- Lightfoot, S. L. (1985). Rosemont High. In V. Perrone (Ed.), Portraits of high schools Princeton NJ: Carnegie Foundation for the Advancement of Teaching.
- Lightfoot, S. L. (1983). The good high school: Portraits of character and culture . New York: Basic Books.
- Lincoln, Y. S. (1986). Toward a future-oriented comment on the state of the professions. The Review of Higher Education, 10(2), 135-142.
- Little, J. W. (1990a). Conditions of professional development in secondary schools. In M. W. McLaughlin, J. E. Talbert & N. Bascia (Ed.), The secondary school workplace New York: Teachers College Press.
- Little, J. W. (1990b). Caution pedestrians slippery when wet: An account of an epistemological dilemma. Paper presented at the annual meeting of the American Educational Research Association.
- Lortie, D. (1975). Schoolteacher . Chicago: University of Chicago Press.
- March, J. G. & Olsen, J. P. (1984). The new institutionalism: Organizational factors in political life. American Political Science Review, 78(September),
- McLaughlin, M. W. (1987). Learning from experience: Lessons from policy implementation. Educational Evaluation and Policy Analysis, 9(2), 171-78.
- McLaughlin, M. W. (1990). Strategic dimensions of teachers' workplace context. Stanford: Center for Research on the Context of Secondary School Teaching, P90-119.
- McLaughlin, M. W. & Talbert, J. E. (1989). Continuation Application . Center for Research of the Context of Secondary School Teaching.

- McLaughlin, M. W., Talbert, J. E. & Bascia, N. (1990). The secondary school workplace. New York: Teachers College Press,
- Metz, M. H. (1989). How social class differences shape the context of teachers' work. New York: Teachers College Press.
- NBPTS. (1989). Recommended standards.
- Ozga, J. & Lawn, M. (1981). Teachers, professionalism and class: A Study of organized teachers . London: Falmer Press.
- Perrone, V. (1985). Portraits of high schools . Princeton, NJ: Carnegie Foundation for the Advancement of Teaching.
- Pfeffer, J. & Salancik, G. (1980). Organizational decision making as a political process: the case of a university budget. In D. Katz, R. Kahn & J. S. Adams (Ed.), The Study of organizations (pp. 397-413). San Francisco: Jossey Bass.
- Powell, A. G., Farrar, E. & Cohen, D. C. (1985). The shopping mall high school . Boston: Houghton Mifflin.
- Rowan, B., Raudenbush, S. W. & Kang, S. J. (1989). School climate in secondary schools: Towards a multilevel model. DRAFT (88-1300). Center for Research on the Context of Secondary Teaching, Stanford University.
- Schein, E. H. (1978). Career dynamics: Matching individual and organizational needs . Reading, MA: Addison-Wesley.
- Scott, J. W. (1988). Gender and the politics of history . New York: Columbia University Press.
- Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. Harvard Education Review, 57(1), 1-22.
- Sizer, T. R. (1984). Horace's compromise: The dilemma of the American high school . Boston: Houghton Mifflin.
- Smetherham, D. (1979). Identifying teacher strategies. CORE, 3(3).
- Stodolsky, S. (1988). The subject matters: Classroom activity in math and social studies . Chicago: University of Chicago Press.

- Talbert, J. E. (1990). Teacher tracking: Exacerbating inequalities in the high school. Stanford: Center for Research on the Context of Secondary School Teaching, P90-121.
- Trow, M. (1976). The American academic department as a context for learning. Studies in Higher Education, 1(1), 11-23.
- Tucker, M. (1986). Preface: Academic alliances. American Association for Higher Education, 1,
- Tyack, D. B. (1974). The one best system . Cambridge, MA: Harvard University Press.
- Van Maanen, J. & Barley, S. (1984). Occupational communities: Culture and control in organizations. Research in Organizational Behavior, 6, 287-365.

1. Her attention to the "emergence" of the department in conversations with teachers from a variety of schools led to a re-examination of that data in "The Primacy and Potential of High School Departments" (Johnson, 1990).

2. The issues surrounding status of the subject, and the importance of the department in determining and preserving that status are addressed in works such as Goodson's The Making of Curriculum (1988). This literature suggests that greater variation might be evident in another selection of subjects (Art, for example, which has been heavily cut by California budget problems) where departmental viability is itself contested.

3. The Center for Research on the Context of Secondary School Teaching is located at Stanford University's School of Education. It involves researchers from Stanford and Michigan State University as well as other university-based consultants in a program of research involving 16 diverse public and independent secondary schools in eight different communities in two states.